Dairy Production

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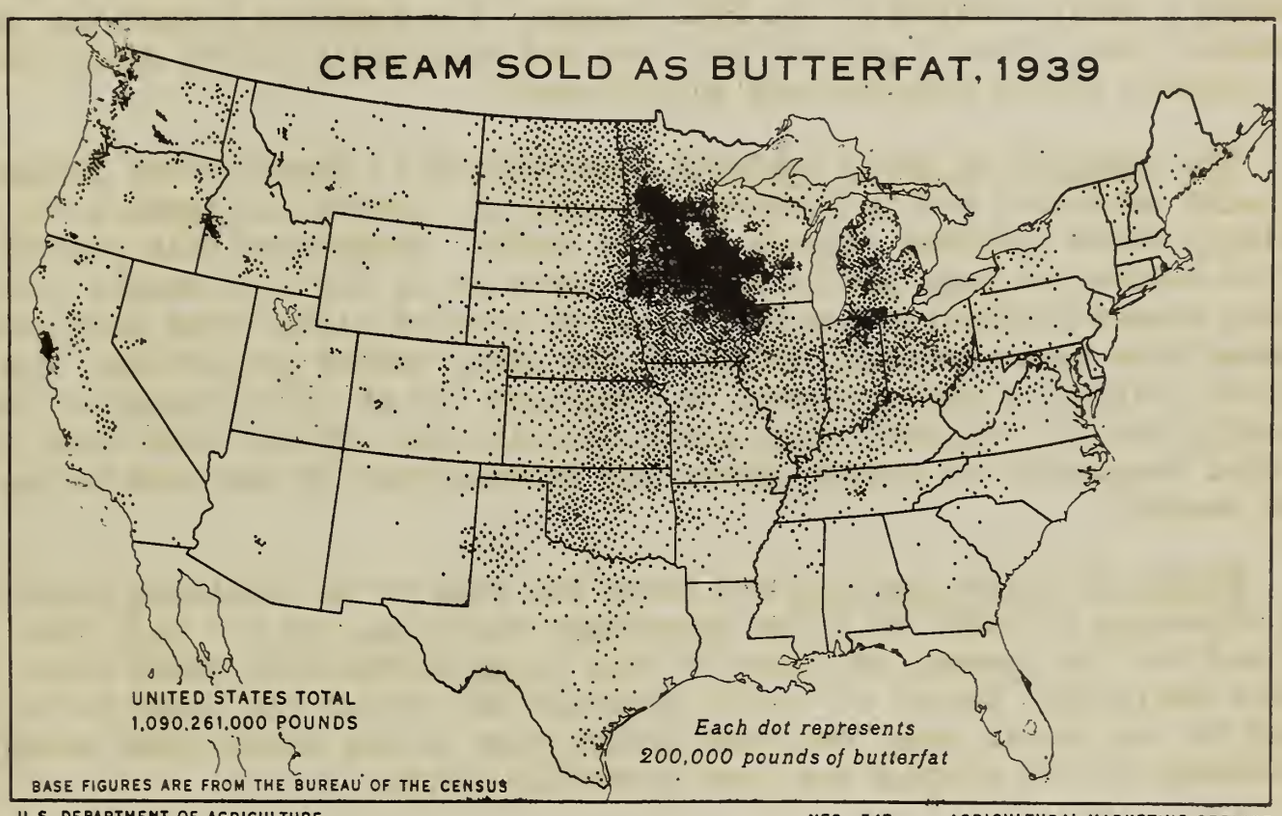

THE CENSUS BUREAU'S RECORD OF BUTTERFAT SOLD BY THE FARMERS OF EACH COUNTY SHOWS THE LOCATION OF MILK SUPPLIES THAT MIGHT BE PARTIALLY DIVERTED FOR MANUFACTURING THE CHEESE, EVAPORATED MILK, DRY SKIM MILK AND OTHER PRODUCTS NEEDED UNDER THE FOOD-FOR-FREEDOM PROGRAM.

ON THIS MAP EACH DOT MEANS THAT FARMERS SKIMMED ABOUT 5 MILLION POUNDS OF MILK--THE ANNUAL PRODUCTION OF MORE THAN 1000 MILK COWS, SOLD ABOUT 750,000 POUNDS OF CREAM CONTAINING 200,000 POUNDS OF BUTTERFAT, AND FED ABOUT 4½ MILLION POUNDS OF SKIM MILK TO LIVESTOCK ON THEIR FARMS. DURING THE WAR PERIOD AN INCREASING PROPORTION OF THIS SKIM MILK WILL BE DIVERTED FROM USE FOR FEEDING LIVESTOCK TO THE MANUFACTURE OF HUMAN FOOD PRODUCTS, AS EXPLAINED ON PAGE 8.

Allowing for usual seasonal variation, the production of cheese and evaporated milk is now about up to the level needed to maintain domestic consumption at the level prevailing in recent years and to cover the Lease Lend requirements now in sight. The urgent need for more dry skim milk continues but to obtain supplies a shift of farmers' marketings from cream to milk is required rather than an increase in total milk production. With more cows on the farms than a year ago and a further increase indicated for this year, the production of milk and dairy products in 1942 will probably continue high compared with past seasons, but the favorable production and manufacturing margins that were required to bring about the record-breaking changes of the past 10 months may not be necessary.

Milk production continues heavy, about as much above average as in recent months. Production per cow has wavered somewhat with weather conditions but is close to, or above, previous high records for the season in most parts of the country except the Southwest. This month the production estimates have been revised following a consideration of the 1940 Census. The revision lowers the general level for recent years about 1 percent but does not materially affect estimates of commercial supplies or the year-to-year comparisons.

The quantity of dairy products manufactured in December was larger than originally estimated and in January aggregate production continued heavy and outstandingly above previous records for the month. Evaporated milk production in the last few months has been nearly twice as great as in the same months last year and American cheese production has been about 50 percent higher than last year but these increases have been partially offset by the lower butter production. The decrease in butter production may, however, be temporary for as milk production increases seasonally the lack of sufficient plant capacity may prevent such heavy diversion of milk from creameries to cheese plants and condenseries as has been taking place in recent months.

Stocks of dairy products are heavy but seem to be declining about normally, after allowance is made for large government holdings, for the high level of production, and for the general tendency to hold large inventories where there is no fear of price ceilings. Stocks of butter declined only about the usual percentage during January but as stocks have been much larger than in any recent year except 1939 the net movement out of storage has been unusually large.

Prices of dairy products, which commonly weaken at this season of the year show about the usual changes from a month ago. The Governments' buying price for cheese is 1½ cents per pound lower and the price paid for evaporated milk has been reduced 20 cents per case. The price of butter is only slightly lower than the average during January and the price of milk for city consumption has held about steady since last month. In comparison with prices at this time last year, the wholesale price of milk, the reported value per 100 pounds of the grain and concentrates being fed and the wage rates of farm labor are each about 1/3 higher than a year ago. Due in part to the large stocks and heavy movement out of storage, the price of butter is only about 16 percent higher than a year ago. In coming months of heavy production the prices of the various dairy products may be closer to their normal relation to each other than they have been in recent months but the price of butter and the price of farm-skimmed cream seem likely to average somewhat lower than usual relative to prices of most other dairy products.

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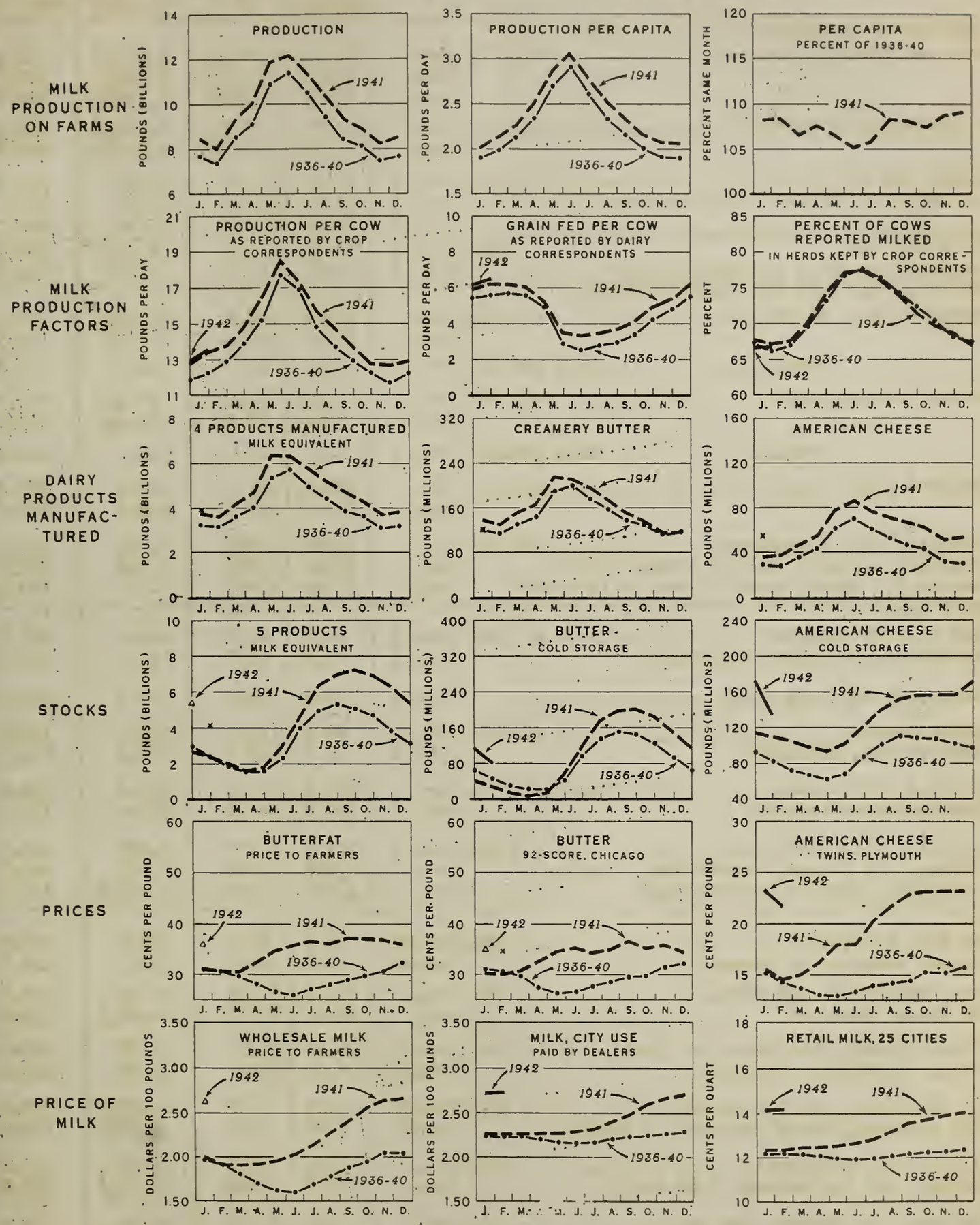
DAIRY STATISTICS: GRAPHIC SUMMARY FOR THE UNITED STATES



* APPROXIMATION BASED ON INFORMATION AVAILABLE TO ABOUT 12TH OF CURRENT MONTH

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

Dairy Production — February 16, 1942

SUMMARY OF DAIRY STATISTICS FOR THE UNITED STATES

			Average 1935-39 or 1936-40	1940 or 1941	1941 or 1942 Total or average	1941 or 1942 Percent of prev. year
MILK PRODUCTION ON FARMS:						
Total, per month	mil.lb.	Nov.	7,226	7,731b/	8,200b/	106.1
		Dec.	7,437	7,961b/	8,466b/	106.3
		Jan.	7,549	8,362b/	8,726ad/	104.4
Per capita, daily average	lb.	Dec.	1.848	1.936b/	2.043b/	105.4
		Jan.	1.876	2.033b/	2.104ad/	103.5
Per cow, per day	lb.	Dec. 1	11.53	12.17	12.74	104.7
(As reported by crop correspondents)		Jan. 1	11.94	12.78	12.95	101.3
		Feb. 1	12.26	13.46	13.55	100.7
GRAIN FED PER COW	lb.	Jan. 1	5.37	5.91	6.17c/	104.4
(As reported by dairy correspondents)		Feb. 1	5.61	6.18	6.53	105.7
PRODUCTION OF MANUFACTURED DAIRY PRODUCTS:						
Creamery butter, monthly	mil.lb.	Dec.	113.3	126.6	117.9b/	93.1
		Jan.	119.0	135.9	121.5a/	89.4
weekly	week ending	Feb. 5	---	---	---	88.3
American cheese, monthly	mil.lb.	Dec.	28.6	35.2	52.9b/	150.3
		Jan.	30.0	36.9	54.8a/	148.5
weekly	week ending	Feb. 5	---	---	---	148.9
Evaporated milk, case	mil.lb.	Nov.	106.8	134.3	258.2	192.3
		Dec.	114.8	148.6	286.9	193.1
4 products, milk equivalent	mil.lb.	Nov.	2,938	3,288	3,681	112.0
(Creamery butter x 21, all cheese except		Dec.	3,040	3,502	3,815	108.9
skim x 10, canned cond. & evap. milk x 2.2)		Jan.	3,210	3,742	---	105.2c/
STOCKS ON HAND:						
Butter in cold storage	mil.lb.	Jan. 1	65.7	41.5	114.4	275.7
(Including government holdings)		Feb. 1	47.2	29.7	83.2	280.1
Commercial holdings, only		Feb. 1	28.3	29.6	77.3	261.1
American cheese	mil.lb.	Jan. 1	92.3	113.1	171.9	152.0
(Cold storage holdings)		Feb. 1	82.6	109.8	134.4	122.4
Evaporated milk, case	mil.lb.	Dec. 1	212.2	226.3	417.6	184.5
(Manufacturers' stocks)		Jan. 1	180.9	187.7	328.4	175.0
5 products, milk equivalent	mil.lb.	Dec. 1	3,747	3,437	6,288	183.0
(Butter, all cheese, canned cond. & evap.		Jan. 1	2,974	2,686	5,381	200.3
milk plus cream in cold storage)		Feb. 1	2,372	2,374	4,119c/	173.5
PRICES:						
Butterfat, per pound	ct.	Dec.15	32.1	34.8	36.0	103.4
(Prices received by farmers)		Jan.15	31.3	31.1	36.3	116.7
Butter, wholesale, per pound	ct.	Jan.	31.10	30.11	35.16	116.8
(92 score, Chicago)		Feb.	30.72	30.07	34.75e/	115.6
American cheese, wholesale, per pound	ct.	Jan.15	15.10	15.50	23.25	150.0
(Twins, Plymouth, Wisconsin)		Feb.15	14.30	14.50	21.75	150.0
Milk, wholesale, per 100 pounds	dol.	Dec.15	2.02	2.07	2.66b/	128.5
(All purposes, prices received by farmers)		Jan.15	1.97	2.00	2.63a/	131.5
Milk for city distribution, per 100 lbs.	dol.	Jan.	2.24	2.26	2.73	120.8
(Prices paid by dealers, 3.5% basis)		Feb.	2.23	2.26	2.74a/	121.2
Milk, retail delivered, per quart	ct.	Jan.	12.17	12.33	14.16	114.8
(Average, 25 markets)		Feb.	12.19	12.33	14.22a/	115.3

a/ Preliminary. b/ Preliminary revision. c/ Forecast or interpolation.
d/ Not available when accompanying chart was prepared. e/ Price February 13.

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MILK PRODUCTION ON FARMS

Milk production gained somewhat more rapidly than usual during January, thus maintaining the record high rate that has been in evidence for more than a year. The conditions favoring heavy production have included a gradually increasing number of milk cows on farms, the highest farm prices for dairy products in recent years, liberal feeding of grains and concentrates to milk cows, and relatively favorable weather in the latter part of the month. Production for January, estimated at 8.7 billion pounds, starts off the new year at a level 4 percent above that in the same month of 1941, a year in which production reached a new high record of 115.5 billion pounds of milk according to the revised estimates of production shown in this issue. Daily production per capita during January this year, averaging 2.10 pounds, was 12 percent above the 1936-40 average for the month and the highest January figure in 18 years of record.

MONTHLY MILK PRODUCTION ON FARMS, UNITED STATES
1936-40 Average, 1941, and 1942

Month	Monthly Total			1942	Daily Average per Capita		
	Average 1936-40	1941	1942	1941	Average 1936-40	1941	1942
	Million pounds			Pct.	Pounds		
January	7,549	8,362	8,726	104	1.876	2.033	2.104
February	7,245	7,935			1.964	2.136	
March	8,462	9,240			2.101	2.245	
April	9,004	9,921			2.308	2.489	
May	10,741	11,711			2.664	2.842	
June	11,203	12,058			2.869	3.021	
July	10,395	11,250			2.575	2.725	
August	9,284	10,279			2.298	2.489	
September	8,349	9,240			2.134	2.310	
October	8,042	8,836			1.987	2.135	
November	7,369	8,200			1.880	2.046	
December	7,535	8,466			1.872	2.043	
Yearly Total	105,227	115,498			2.211	2.377	

Milk production per cow continued unusually high during January as the upward seasonal swing of production gathered impetus. On February 1 this year it was up nearly 5 percent from a month earlier and was about 1 percent higher than on February 1, 1941, the previous high record for this date. In comparison with the 1931-40 average for February 1, milk production per cow was up more than 10 percent, with all major groups of States except the South Central sharing nearly uniformly in the high level of production.

In New York, Michigan, Wisconsin, Illinois, Missouri, Kansas and the Virginias, production per cow in herds kept by crop correspondents equalled or exceeded previous high February 1 records. In Minnesota, New Jersey, Pennsylvania and some less important dairy States, February 1 production per cow this year has been exceeded only once in the 18-year period for which records are available. In the more important commercial dairy regions the percentage of milk cows reported milked, although generally near the seasonal low point, was at or close to the highest level for the season in any recent year. On the other hand, in some South Central States, particularly Texas, the low percentage of milk cows in production has brought production per cow in herd well down toward the low point for February 1.

For the country as a whole milk production per cow in herds kept by crop correspondents averaged 13.55 pounds on February 1 compared with 13.46 pounds on that date last year and a 1931-40 average of 12.26 pounds for February 1. In these herds 66.8 percent of the milk cows were reported being milked on February 1 compared with 67.3 percent a year earlier and a 10-year average of 65.9 percent for the date.

GRAIN FED PER MILK COW: On February 1 this year milk cows in all parts of the country were being supplied liberally with grain and concentrated feeds. In herds kept by dairy correspondents, where emphasis tends to focus on commercial production, the quantity fed per cow on February 1 averaged 6.53 pounds, the highest for the date in a dozen years of record. In herds kept by crop correspondents, where feeding practices tend to reflect more nearly general farm conditions, the February 1 average of 5.38 pounds per cow this year was likewise higher than reported for the date during the preceding decade. Both groups of farmers were feeding about a sixth more grain per cow than average for February 1 in the 1936-40 period. The heavy rate of feeding this year appears to reflect the unusually good prices to farmers for dairy products and the relatively abundant supplies of feed grains on farms.

Grain and Concentrates fed per milk cow per day in herds kept by dairy correspondents, February 1, 1936-40 Av., 1941-42

Year - February 1	North Atlantic	E. North Central	W. North Central	South Atlantic	South Central	Western	United States
	Pounds						
1936-40 Av	5.98	5.84	5.48	6.20	5.82	3.82	5.61
1941	6.6	6.4	6.3	6.6	6.2	4.2	6.18
1942	7.0	6.6	6.8	6.4	6.8	4.1	6.53

The value per 100 pounds of grain and concentrates fed to milk cows increased sharply during the past 3 months, with the February 1 reported average of $1.80 per cwt., 22 cents higher than on November 1, 1941. Except for February 1, 1937 when feed costs were high because of short supplies following drought, the unit value of grain fed to milk cows this year is the highest for the date in 11 years of record.

Feed costs were higher in all parts of the country. As compared with February 1 a year ago the major groups of States showed increases ranging from 24 to 38 percent, with the value of grain fed in the North Central and Western regions up more than a third. For the country as a whole, the value of the grain fed to milk cows on February 1 was 30 percent higher than at the same time a year ago and a fourth above the 1936-40 average for the date.

Value per 100 Pounds of Grain and Concentrates Fed to Milk Cows in Herds Kept by Dairy Correspondents, by major groups of States, Feb. 1 Av. 1936-40, specified dates, 1941-42

	North Atlantic	E. North Central	W. North Central	South Atlantic	South Central	Western	United States
	Dollars						
1936-40 Av. Feb. 1	1.78	1.35	1.20	1.64	1.44	1.49	1.43
1941							
Feb. 1	1.78	1.33	1.08	1.66	1.41	1.38	1.38
May 1	1.76	1.36	1.13	1.73	1.43	1.43	1.41
Aug. 1	1.89	1.46	1.20	1.81	1.55	1.56	1.51
Nov. 1	2.02	1.50	1.21	2.00	1.64	1.71	1.58
1942							
Feb. 1	2.20	1.78	1.45	2.13	1.81	1.90	1.80

GRAIN FED AND MILK PRODUCED PER MILK COW IN HERDS KEPT BY REPORTERS 1/

State	Grain Fed per Milk Cow 2/			Milk Produced per Milk Cow 3/			
	Feb. 1 Avg. 1936-40	Feb. 1 1941	Feb. 1 1942	Feb. 1 Avg. 1931-40	Feb. 1 1940	Feb. 1 1941	Feb. 1 1942
	Pounds			Pounds			
Maine	4.6	4.6	5.1	12.4	13.0	12.7	12.9
N.H.	4.6	4.8	5.0	12.6	14.6	14.7	13.8
Vt.	4.5	4.5	4.8	13.4	13.1	13.9	14.3
Mass.	6.3	6.4	6.6	17.2	17.3	18.6	18.0
Conn.	5.8	5.9	6.0	17.0	16.8	17.3	17.6
N.Y.	5.1	5.7	6.3	15.3	16.4	16.6	18.1
N.J.	7.9	7.9	8.6	19.0	18.9	19.2	19.9
Pa.	6.2	6.7	6.8	15.8	16.2	16.4	17.0
N.ATL.	5.5	5.9	6.3	15.60	16.12	16.50	17.28
Ohio	6.1	6.0	6.6	13.9	14.2	14.4	14.4
Ind.	6.1	5.4	5.7	12.5	12.8	13.4	13.5
Ill.	6.3	7.1	7.2	13.7	14.0	16.0	16.5
Mich.	5.2	6.0	5.9	15.9	16.7	17.2	17.2
Wis.	4.2	5.1	5.5	15.2	15.4	16.4	17.1
E.N.CENT.	5.4	5.8	6.1	14.45	14.78	15.77	16.21
Minn.	4.6	5.5	5.5	15.9	17.2	18.4	18.1
Iowa	6.5	7.0	7.0	13.6	14.4	15.3	14.7
Mo.	4.4	5.3	5.0	8.1	8.6	8.6	9.4
N.Dak.	3.1	4.3	4.8	10.8	12.3	13.4	13.3
S.Dak.	3.0	3.2	3.9	10.6	12.1	11.0	11.9
Nebr.	3.5	4.3	5.3	12.2	12.2	12.9	13.5
Kans.	3.9	5.0	5.5	12.5	12.4	13.9	13.9
W.N.CENT.	4.6	5.3	5.8	12.24	13.03	14.00	13.66
Md.	6.0	6.4	6.7	13.5	13.2	15.0	14.3
Va.	4.7	4.8	4.9	9.5	9.7	9.7	10.8
W.Va.	3.6	3.7	4.4	8.3	8.2	9.0	9.6
N.C.	4.8	4.8	4.8	9.7	10.5	10.6	10.7
S.C.	3.9	3.6	3.3	9.2	8.9	9.7	9.4
Ga.	3.3	4.5	4.2	7.9	7.7	8.5	8.3
S.ATL.	4.4	4.9	5.0	9.62	9.99	10.66	10.58
Ky.	5.8	5.9	6.3	8.8	8.7	9.5	10.2
Tenn.	4.8	4.7	5.4	7.9	8.3	8.5	8.7
Ala.	4.2	4.7	5.0	7.2	7.6	7.5	7.7
Miss.	3.4	3.3	4.1	5.9	5.3	5.7	6.0
Ark.	3.6	4.1	4.3	6.6	6.5	7.5	6.8
Okla.	3.5	4.5	4.4	9.1	8.4	9.4	8.6
Tex.	3.5	4.0	3.6	7.8	7.0	8.0	7.1
S.CENT.	3.9	4.3	4.4	7.74	7.47	8.29	8.00
Mont.	3.1	4.7	3.3	11.5	12.3	12.4	14.5
Idaho	2.5	2.6	3.2	15.3	16.0	15.7	15.2
Wyo.	2.1	2.5	2.7	11.0	11.8	12.5	12.4
Colo.	3.2	3.4	4.5	12.4	13.6	13.9	14.0
Wash.	4.6	4.0	4.5	15.2	14.3	15.7	15.6
Oreg.	3.7	3.7	4.0	13.1	13.6	14.1	14.4
Calif.	3.3	3.4	4.4	16.2	17.3	17.0	18.1
WEST	3.3	3.6	4.0	13.74	14.36	14.95	15.13
U. S.	4.62	5.13	5.38	12.26	12.65	13.46	13.55

1/ Figures for New England States are based on combined returns from Crop and Special Dairy reporters. Figures for other States, regions, and U.S. are based on returns from Crop reporters only. The regional averages are based in part on records of less important dairy States not shown separately. 2/ Averages per cow computed from reported "Pounds of grain and concentrates fed yesterday to milk cows on your farm (or ranch)." 3/ Averages represent the reported daily milk production of herds kept by reporters divided by the total number of milk cows (in milk or dry) in these herds.

BUTTERFAT SALES AS AN INDICATION OF AVAILABLE MILK SUPPLIES

For many years the 1½ million farmers who sell the cream used for making creamery butter have been skimming more than 30 billion pounds of milk annually, or about as much milk as has been bottled for consumption by the non-farm population. This has left on farms each year more than 25 billion pounds of skim milk. Nearly all of this "by-product" has been fed to calves, hogs, and poultry, together with much of the 8 billion pounds of skim milk and buttermilk left from farm butter production. This skim milk being used for feed represents a vast supply of potential human food, and as long as the war continues more farmers will tend to deliver whole milk so that all of the milk, instead of only the cream, can be used for human consumption.

This trend toward larger deliveries of whole milk relative to cream began some years ago and increased sharply as a result of Lend Lease purchases. Further increases are to be expected but they will be made under difficulties. In some areas any further shift is now limited by plant capacity, particularly during the season of flush production. The shortage of rubber tires will make it difficult for some farmers to deliver even the usual quantity of milk. In the Corn Belt both the high price of hogs and the shortage of other feeds that can be substituted for skim milk increase the value of skim milk for feeding purposes and tend to retard the shift. On the other hand, the price of milk is likely to continue unusually high compared with the price of butterfat, and a great many farmers, particularly those who are milking 8 cows or more, will find that they can increase their incomes materially by selling all of the milk instead of only the cream.

The map on page 1 shows the relative quantities of butterfat in the cream sold by farmers in the various parts of the country in 1939, as indicated by the Census. Aside from a slight incompleteness, these butterfat sales differ materially from the butterfat in creamery butter made, for in some States, such as New York and California, less than half of the butter is made from farm-skimmed cream; and in other States, such as Arkansas and West Virginia, more than half of the cream sold by farmers is churned in other States. The areas of butterfat production appear to be determined largely by relatively fixed natural conditions. As the cream from 100 pounds of milk weighs only about 15 pounds and the cream does not need to be cooled so carefully or hauled so promptly as does milk, the cost of cooling, hauling, or shipping the output of a small herd is much less when cream is sold than when milk is sold. The butter made from 100 pounds of milk weighs only about 5 pounds, compared with 10 pounds for cheese and 45 pounds for evaporated milk. Therefore, butter can be shipped a long distance at a relatively small cost and the main butter-producing areas are farther from principal markets than the areas where other dairy products are important. Milk deteriorates rapidly and must be produced under strictly sanitary conditions, cooled promptly, and delivered daily; cream is less severely penalized in price if the quality is poor. As a result of these influences most of the farmers who sell cream either are located in areas where distance from market or other conditions favor the production of butter rather than of other milk products or have so few cows that they cannot afford the higher cost involved in marketing milk. In 1939, farmers selling cream sold an average of only about 750 pounds of butterfat per farm, the product of about 4 cows, and in the South the average was no more than 2 cows could produce. Farmers who sell milk have herds two or three times as large.

As shown on page 1 the area of heaviest butterfat sales in 1939 included the main agricultural portions of Minnesota, a double row of counties in western Wisconsin and the northern or northeastern half of Iowa. In this limited area, which produces about a third of the butterfat sold in the United States, the quantity sold per farm was about twice the national average and a large part was produced on farms where dairying is a major farm enterprise and where conditions are favorable for the production of high-quality milk. This would seem to be the area where a large additional volume of milk could be most quickly obtained. Somewhat similar conditions exist in limited areas in other Corn Belt States, on the Pacific Coast, and in some irrigated valleys of the West. Elsewhere butterfat production is widely scattered and, except for a few producers selling sweet cream for fluid consumption, average sales of butterfat per farm are small.

The extent of the shift towards increased deliveries of milk relative to cream is, of course, dependent on the many factors that affect production, consumption, and exports. Aside from all costs of maintenance, interest and taxes on farms, buildings, dairy herds and equipment and all manufacturing and distribution costs, the labor cost of raising feed and caring for cows in butterfat producing areas appears to average about 1 hour of farm labor per pound of butterfat produced. This high labor cost makes it difficult for butter to compete with other food fats in wartime. Other dairy products (except perhaps cream) appear to be less directly competitive with other foods. In recent months, as in the winter of 1917-18 during World War 1, the price paid to farmers for milk has been unusually high compared with the price paid for butterfat, partially because the consumption of milk and whole-milk products held up better after price increases than did the consumption of butter. This is probably a normal response to war conditions. Butter consumption per capita was probably lower in 1918 than in any other year since the Civil War. At present, British consumption of butter per capita is about a fourth of the prewar average and little more than a third of what it is here now.

John B. Shepard

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Revised State estimates of annual milk production in 1939 and 1940, together with new estimates of production for 1941 on a comparable base, are shown on page 10. These revisions take into account the information on milk production obtained in the 1940 Census of Agriculture and for the country as a whole reduce the level of estimates of milk production in recent years by about 1 to 2 percent. There will also be some revisions in previously published estimates for the years 1935-38 which are to be released with the report "Farm Production, Disposition and Income from Milk" to be issued April 20.

With annual milk production per cow reaching a new peak and with milk cow numbers approaching the pre-drought maximum, following 3 successive yearly increases, the amount of milk produced on farms in the United States in 1941 was by a considerable margin the highest yearly production ever obtained. Estimates shown in detail on page 10 place the quantity of milk produced on farms in 1941 at 115.5 billion pounds. The 1941 production of 868 pounds of milk for each person in the United States is the highest in the 18-year period for which estimates are available and 7 percent higher than average for the 1931-40 period.

The average number of milk cows on farms during 1941, estimated at 24,357,000 head was nearly 3 percent higher than in 1940 but was still several percent short of the record number in 1934. Milk cow numbers have been on the upgrade for 3 consecutive years since the recent year low point reached in 1938 and in each succeeding year the rate of increase has been greater than in the previous one. However, the percentage change from 1940 to 1941 was only about two-thirds as great as for some of the depression years of the early 1930's when culling was much lighter than it has been in recent years. Present prospects point toward a continuation of the upward trend in milk cows during the next year or two.

Annual milk production per cow in 1941, estimated at 4,742 pounds is about 2½ percent higher than in 1941 and an all-time record. An excellent pasture season in the Western two-thirds of the country, liberal supplies of feed grains on farms in most areas, and unusually good prices for dairy products encouraged farmers to push their cows for heavy production by better-than-usual feeding and care. Only once during the year did milk production per cow on the first of the month drop below that for the corresponding date in 1940, and the 1941 level ranged from 7 to 12 percent higher than the 1930-39 averages for the same dates.

In all States total milk production in 1941 was as high or higher than in 1940. Largest increases were apparent in Wisconsin, the Great Plains Area, and in scattered States of the South and West. In Wisconsin the availability of plant facilities for production of cheese and evaporated milk, which have been at a premium under the Government dairy product purchase program, encouraged farmers to increase the production of milk as rapidly as they could. In this State, which in 1941 produced 54 percent more milk than its nearest competitor, Minnesota, the number of milk cows was 3 percent higher than in 1940 and milk production per cow up more than 4 percent.

In the Plains States, where the number of milk cows was reduced sharply following the drought years, increases have been fairly rapid in the past two years. With the 1941 pasture season generally the best of recent years, production per cow in this area also was up sharply. In most of the States in the Belt extending from Montana and North Dakota southward to Texas, milk production increased 5 percent or more compared with 1940, and the increase of 11 percent in Kansas was the greatest for any State in the Nation. In the South Central States east of the Plains Area, where the 1940 season was not particularly favorable for milk production, rather heavy increases were apparent for 1941 with Kentucky and Arizona leading the way. In some parts of the area and in the South Atlantic group of States the May and June drought which resulted in short pastures was instrumental in holding down 1941 milk production. In the Corn Belt States, milk production in 1941 showed increases ranging from 4 to 7 percent over that in 1940. The increases resulted from both more milk cows and moderately higher production per cow. In the Western part of the country Idaho, with an increase of nearly 8 percent in milk production, showed the greatest change from 1940. The higher milk production in this State, as in most other States in this area, resulted chiefly from more milk cows on farms. In most of the Mountain and Pacific Coast States milk production per cow in 1941 was very high compared with years prior to 1940, but where 1940 was favorable there was not much further increase in 1941.

In the North Atlantic States the increases in milk production were mostly moderate, with the more important dairy States up from 3 to 4 percent. The effects of the summer drought and the shift of workers from farm to industrial production have no doubt had some influence in limiting the increase in milk production in this important fluid milk area.

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MILK COWS AND MILK PRODUCTION ON FARMS, BY STATES, 1939-41

State	Number of milk cows on farms during year 1/			Annual milk production per cow 2/			Milk produced on farms during year 2/			
	1939 3/	1940 3/	1941 4/	1939 3/	1940 3/	1941 4/	1939 3/	1940 3/	1941 4/	1941 as % of 1940
	Thousands			Pounds			Million pounds			Pct.
Maine	132	132	131	4,680	4,830	5,020	619	638	658	103
N.H.	73	73	72	4,850	4,940	5,030	354	361	361	100
Vt.	275	279	282	4,900	5,100	5,200	1,348	1,423	1,466	103
Mass.	134	135	135	5,900	6,000	6,080	791	810	821	101
R.I.	21	21	21	6,360	6,500	6,500	134	136	136	100
Conn.	115	116	118	5,850	5,760	6,000	673	670	708	106
N.Y.	1,305	1,325	1,345	5,600	5,780	5,910	7,308	7,658	7,949	104
N.J.	144	148	151	6,550	6,550	6,650	943	969	1,004	104
Pa.	848	860	882	5,320	5,460	5,520	4,511	4,696	4,869	104
N.ATL.	3,047	3,089	3,137	5,475	5,620	5,739	16,681	17,361	17,972	103.5
Ohio	985	995	1,025	4,640	4,640	4,720	4,570	4,617	4,838	105
Ind.	726	738	760	4,320	4,370	4,520	3,180	3,225	3,435	107
Ill.	1,044	1,061	1,082	4,840	4,880	5,040	5,053	5,198	5,453	105
Mich.	880	908	935	5,350	5,450	5,480	4,762	4,949	5,124	104
Wis.	2,108	2,165	2,230	5,680	5,850	6,110	11,973	12,665	13,625	108
E.N.CENT.	5,753	5,867	6,032	5,134	5,283	5,384	29,538	30,644	32,475	106.0
Minn.	1,600	1,632	1,685	5,100	5,150	5,300	8,160	8,405	8,824	105
Iowa	1,363	1,383	1,418	4,680	4,780	4,880	6,379	6,611	6,920	105
Mo.	884	903	948	3,700	3,750	3,830	3,271	3,386	3,631	107
N.Dak.	465	484	506	4,100	4,370	4,470	1,906	2,115	2,262	107
S.Dak.	438	456	477	3,750	3,830	3,830	1,642	1,746	1,827	105
Nebr.	595	605	617	4,400	4,280	4,460	2,618	2,589	2,752	106
Kans.	691	708	736	4,170	4,040	4,310	2,881	2,860	3,172	111
W.N.CENT.	6,036	6,171	6,387	4,449	4,491	4,616	26,857	27,712	29,388	106.0
Del.	32	33	34	4,330	4,360	4,540	139	144	154	107
Md.	187	192	198	4,800	4,800	4,850	898	922	960	104
Va.	390	402	414	3,670	3,760	3,840	1,431	1,512	1,590	105
W.Va.	223	224	228	3,530	3,460	3,520	787	775	803	104
N.C.	330	333	346	3,970	3,930	3,990	1,310	1,309	1,381	106
S.C.	153	153	158	3,550	3,520	3,600	543	539	569	106
Ga.	332	329	332	3,380	3,200	3,240	1,122	1,053	1,076	102
Fla.	100	101	104	3,300	3,150	3,300	330	318	343	108
S.ATL.	1,747	1,767	1,814	3,755	3,719	3,791	6,560	6,572	6,876	104.6
Ky.	521	536	542	3,620	3,500	3,690	1,886	1,841	1,995	108
Tenn.	524	537	553	3,540	3,520	3,510	1,855	1,820	1,941	107
Ala.	361	363	374	3,320	3,150	3,260	1,199	1,143	1,219	107
Miss.	485	480	485	2,700	2,490	2,600	1,310	1,195	1,261	106
Ark.	430	439	454	3,150	3,040	3,200	1,354	1,335	1,453	109
La.	280	283	286	2,370	2,220	2,250	664	628	644	103
Okla.	687	704	739	3,620	3,530	3,470	2,487	2,380	2,564	108
Tex.	1,310	1,310	1,349	3,200	3,200	3,300	4,192	4,192	4,452	106
S.CENT.	4,598	4,642	4,732	3,251	3,131	3,247	14,947	14,534	15,529	106.8
Mont.	142	148	154	4,800	4,650	4,760	682	688	733	107
Idaho	199	207	222	5,850	5,930	5,950	1,164	1,228	1,321	108
Wyo.	64	65	66	4,400	4,500	4,520	282	292	298	102
Colo.	216	218	220	4,640	4,660	4,850	1,002	1,016	1,067	105
N.Mex.	69	71	72	3,900	4,040	4,150	269	287	299	104
Ariz.	43	43	44	5,470	5,400	5,480	235	232	241	104
Utah	96	96	99	5,660	5,730	5,890	43	550	580	105
Nev.	19	19	20	5,720	5,600	5,770	109	106	115	108
Wash.	320	328	338	6,070	6,100	6,170	1,942	2,001	2,085	104
Oreg.	248	248	250	5,500	5,620	5,710	1,364	1,394	1,428	102
Calif.	676	705	740	6,830	6,940	6,880	4,617	4,893	5,091	104
WEST	2,092	2,148	2,225	5,836	5,906	5,959	12,209	12,617	13,258	104.5
U. S.	23,273	23,684	24,357	4,589	4,624	4,742	106,792	109,510	115,498	105.5

1/ Average number on farms during year, heifers that have not freshened excluded.
2/ Excludes milk sucked by calves and milk produced by cows not on farms.
3/ Revised. 4/ Preliminary.

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